



Civilian Conservation Corps Serpentine Walls

Introduction

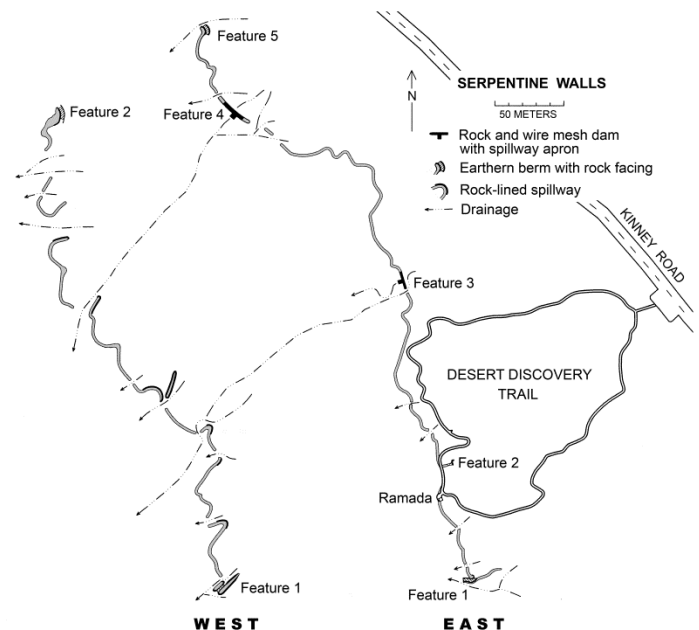
The Serpentine Walls are two long sinuous erosion control structures built in the 1930s by the Civilian Conservation Corps (CCC) in Tucson Mountain Park (TMP). Today the Serpentine Walls are located within Saguaro National Park's Tucson Mountain District (TMD).

The two walls are designated as the East Serpentine Wall and the West Serpentine Wall (see map). The east wall is located adjacent to the Desert Discovery Trail southwest of Kinney Road; the west wall is between 370 feet and 650 feet west of the east wall. The purpose of the walls was to minimize flooding from sheet wash which would have been held in check behind the walls with excess water being diverted to the nearest large drainage through stone-lined spillways.

Description

The East Serpentine Wall is slightly over 1500 feet long while the west wall is a little over 1250 feet long. The berms average approximately 6 feet wide at their base by 2 to 3 feet in height. The two serpentine walls run in the same direction, SE to NW.

The serpentine walls are a combination of earthen berms, Gabion style dams, and rockwork. Both walls are constructed primarily of earth, but to minimize erosion, some portions of the berms have been reinforced with



Feature map showing the two Serpentine walls and their associated features.

stone facing on the upslope side. The east wall has two Gabion style dams constructed of rock and wire mesh. This style of dam is sometimes referred to as sausage dams by the CCC. These two dams span large drainages. One of the dams is 42 feet long; the other is 60 feet long; both are about 3 feet high. Both dams have a rock apron along their center on the downslope side. These aprons help prevent erosion caused by water running over the tops of the dams. A similar apron can be seen along the base of the large CCC dam at Sus Picnic Area. Neither of the Serpentine Wall dams is functional. Erosion has cut around the south end of one dam; the other has partially collapsed at the center.

At the ends of both walls and at other locations along the walls are stone-lined spillways. These spillways are about 100 feet long by 20 feet in width. The sides of the spillways consist of large stacked, unmortared rock and are battered (angled back). Floors of the spillways consist of large flat laying rock pavement. At the terminal end of each spillway is a pavement of small crushed rock.



One of two Gabion style dams along the East Serpentine Wall.

The earthen berms have suffered from erosion and drainages have cut through the walls in a number of places. At the Desert Discovery Trail one of the trail's ramadas was built on top of a small section of the East Serpentine Wall. This trail has also disturbed one of the spillways.

This spillway is now inside the Desert Discovery Trail loop (see map, East Wall, Feature 2).

In general, the rock features are in good shape but vegetation growing between the rocks threatens to displace some stones.

Visiting the Serpentine Walls

Remember, for both Districts there is no off trail hiking below 4500 feet! This means visiting the Serpentine Walls is restricted to that portion of the east wall (berm) and spillway that is accessible along the Desert Discovery Trail.

Both features are susceptible to damage from wind and water erosion. One should never walk on the berm or the rock lined spillway. Footprints loosen soil which encourages erosion.



One of the stone-lined spillways. This one is Feature 2 (see map) on the north end of the West Serpentine Wall.

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